

## DMS Students Build Bridges Through Trips to Kosovo

**T**he Kosovo (Kosova) Project at Dartmouth Medical School, funded by the Blessing Way Foundation, is an ongoing partnership between Dartmouth Medical School and the University of Pristina (Prishtina) School of Medicine to provide an exchange program for students from both schools. Fourth-year DMS students Dan Bullock, Seth Crockett, Amy Madden and Tim Pieh spent one month in Kosovo this fall with additional funding from the Dartmouth International Health Group and Ohiyesa. Crockett and Madden were the first Dartmouth students to participate in a new obstetrics/gynecology elective in Kosovo, funded with a grant from the Dickey Center for International Understanding at Dartmouth College and led by Leslie Demars, MD, assistant professor of obstetrics and gynecology. The program continues to have funding for DMS students to spend one month in Kosovo. For more information about student exchange programs, contact Susan Linsey at 650-1208 or Susan.Linsey@dartmouth.edu.

*The following are excerpts of the trip report by Seth Crockett, student government president.*

I traveled to Kosova in September and October of my fourth year of study at Dartmouth Medical School with funding from the DMS Kosova Project. I studied primarily at the University of Prishtina Medical School in the Department of Obstetrics and Gynecology.

I spent most of my time in the obstetrics and gynecology hospital on the main campus. ... We would often start our days out in the delivery wing in the morning, even if we were headed to other areas of the building later in the day.

The number of deliveries that take place in the hospital is astounding — up to 40 per 24-hour period, around 13,000 per year. There were four “birthing rooms” in the delivery area which often were all occupied with delivering or recently deliv-



*Seth Crockett '03 and Teuta Daullxhiu, MD, a resident in obstetrics/gynecology at the University of Pristina Medical School.*

ered women at any given time. We saw many, many deliveries, with only a few complications.

We spent time in other areas of the ob/gyn hospital as well. We spent a number of days in the “pathological pregnancy” wing ... We saw approximately 50 patients in 30 minutes — a big train of two or three attending physicians, three residents and five or six nurses would parade into each room with three or four beds apiece; they would look at the chart, order medications for the day, decide if someone needed an ultrasound, nonstress test, sterile speculum exam or other procedure.

We saw many surgeries in the operating rooms on the first floor of the hospital. Besides cesarean sections, we saw a few hysterectomies, a cystocele repair, laparoscopic ovarian cyst removal, and cerclage place-



*Obstetrics and gynecology hospital on the campus of the University of Pristina Medical School.*

ment among others. For the most part, the techniques seemed similar to those in the US, despite the fact that the Kosovar surgeons had to work with inferior equipment — dull instruments, heavy cloth gowns often with holes in them, suction apparatuses which didn't work reliably, sutures and needles which were not always the correct size. There were no mechanical ventilators so anesthesiologists bagged by hand. The “operating rooms” were essentially patient rooms which were converted to operating rooms and therefore were without the negative pressure ventilation and ceiling mounted lighting that is often found in the US.

One aspect of patient care that was



*Husband and wife Tim Pieh '03 and Amy Madden '03.*

particularly remarkable was the lack of privacy of the patients and the apparent lack of concern on their part. It was much different from the corollary US experience in that women were examined oftentimes with eight to ten doctors, nurses or other patients in the room.

I spent two days at the pulmonary hospital during my last week in Prishtina ... I found this experience fascinating, especially since I've not seen a clear-cut case of TB in the US before. I worked primarily with Dr. Gazmend Zhuri and his colleague Dr. Rukije Mehmeti, both of

*Kosovo continued on page 4*

## Deans Column

What's new at DMS in medical education?

There are exciting developments going on in three major areas: our formal curriculum, our educational support services and our education infrastructure. Here are just a few highlights.

In July, the Medical Education Committee launched a new, improved format for year three/four clerkships, incorporating many constructive suggestions from clerkship directors and students over the past few years. Planning for these changes took more than two years! Changes have strengthened and reunited the split clerkships in obstetrics/gynecology/women's health and pediatrics. All clerkships became a bit shorter to make room for a new required year three course, ICE (interdisciplinary clinical experience), directed by Dr. Eric Shirley, our assistant dean for clinical education. This course brings together several topics that are "too broad" for inclusion in any single clerkship or that weren't covered in our traditional required clerkships. It covers such topics as key non-physician members of health care teams, accessing and practicing evidence-based medicine, introduction to radiology, HIV/AIDS, genetic counseling, etc. Thus far it has been well received, and bringing the entire year three class back together for three days every eight weeks has additional benefits.

The OSCE (objective structured clinical examinations) exercises have been substantially rewritten and expanded under the supervision of Dr. Patty Carney, our assistant dean for medical education research. These experiences provide valuable feedback to students and clerkship directors and should put our students in excellent shape for when the NBME (National Board of Medical Examiners) introduces similar OSCE exercises as part of Step II in 2004. In addition, more students than ever can now take an elective experience during year three if they desire. This has special value for students who want to "try out" a field such as orthopedics or dermatology, that have early match dates.



Mark Austin-Washburn

In our educational support services, DMS continues to lead the way in providing support, guidance and accommodations to our students who have different types of disabilities. We have a Committee on Students with Disabilities to set policies and determine accommodations, and a wonderful coordinator, Rae Fountain, to help individual students arrange their approved accommodations. We are in the process of recruiting a new person who will provide further support for our disability office, and also be our first DMS learning specialist helping students who are struggling in a course, having difficulty preparing for board exams or wishing they could find a more efficient and effective learning strategy for themselves.

Finally, there have been dramatic improvements in our education infrastructure over the past two years, thanks to critical financial support identified by Deans John Baldwin, Ethan Dmitrovsky and Adam Keller, and financial guru Kathy Byington. Noticeable improvements include: replacing all seating in Kellogg Auditorium; dramatic redesign and reconstruction of Chilcott Auditorium, making it a more attractive room for interactive lectures; significant improvements in the audio-visual systems in every major teaching auditorium and classroom; addition of many new classrooms

for conferences, seminars and problem-based learning groups; improvements in the wireless environment for students with laptops; improved school support for students who wish to purchase PDAs and popular software; and a more helpful and proactive Office of Academic Computing (assisting faculty with ways to let information technology improve our formal curriculum). Thanks to Alan Cook and David Harris for our classroom plans, Reed Detar for taking the lead in the audio-visual improvements, and Steve McAllister, Steve Andrews and Bill Garrity for their support of our information technology efforts.

One last note: This past year, we have had two visiting speakers help us think about how to use information technology to improve our curriculum, and also offered our first Medical Education Grand Rounds. All three guest lectures were successful and more are planned.

If this brief summary makes it appear to you that there is a lot of change, improvement and excitement in our medical education activities — you are right!

David W. Nierenberg, MD  
Senior Associate Dean for Medical Education  
Edward Tulloh Krumm Professor

## New Psychiatry Chair on Board

Harvard psychiatrist Alan I. Green, MD, has arrived to

begin his new role as chair of the Department of Psychiatry at Dartmouth Medical School, effective November 15. He succeeds Peter Silberfarb, MD, who stepped down after heading psychiatry since 1986. Of his new work environment, Green said: "I'm impressed by the depth of the faculty at Dartmouth and I look forward to working with my new colleagues here."

An active researcher, Green focuses on clinical and biologic studies of patients with schizophrenia and related psychiatric disorders, and of atypical and novel antipsychotic drugs. His central research areas are: eluci-



Courtesy of HMS

dating actions of the atypical drug clozapine and determining if its early use in patients with schizophrenia can improve long-term outcomes compared to treatment with other antipsychotic medications; delineating the basis of the frequent co-occurrence of substance abuse and schizophrenia and examining how clozapine limits substance abuse in these patients; collaborating on investigations of the effects of antipsychotic medications on hormone systems, particularly in women with schizophrenia.

After receiving a BA at Columbia and an MD at Johns Hopkins, Green trained at Harvard, at the Beth Israel Hospital and the Massachusetts Mental Health Center, and completed a research fellowship at the National Institute of Mental Health. He was a clinical fellow, then a senior research fellow in psychiatry until he joined the Harvard Medical School faculty in 1984.

## Hormone Decreases Need for Blood Transfusions

**A** Dartmouth study could have implications for the nation's decreasing blood supply, reducing the need for blood transfusions in critically ill patients.

Results of the two-year trial, led by Dartmouth-Hitchcock Medical Center physicians Howard L. Corwin, MD, professor of medicine at Dartmouth Medical School, and Andrew Gettinger, MD, associate professor of anesthesiology, appeared in the December 11 issue of the *Journal of the American Medical Association (JAMA)*.

Critically ill patients who received weekly doses of recombinant human erythropoietin (rHuEPO) were less likely to need a red blood cell (RBC) transfusion and showed a greater increase in hemoglobin, they found. Use of the hormone, which stimulates the body to produce new red blood cells, led to a 19 percent reduction in RBC units transfused to those patients. "Weekly therapy with 40,000 units of rHuEPO in critically ill patients results in a significant reduction in their exposure

to allogeneic [genetically different] RBC transfusions," the authors concluded.

Some 35 to 50 percent of patients admitted to an intensive care unit (ICU) in the US and Western Europe receive almost five RBC units during their stay, usually to treat anemia, but to reduce risks of infection or immune system suppression, alternatives are being sought. "The view of RBC transfusion as risk-free is no longer tenable," the authors noted. "Adding to the controversy about risk-benefit ratio for RBC transfusion are recent data showing that an aggressive RBC transfusion strategy may decrease the likelihood of survival in selected subgroups of critically ill adults."

The double-blind, placebo-controlled trial conducted at 65 centers between December 1998 and June 2001, enrolled 1,302 patients who had been in the ICU for two days and were expected to be there at least two more days. Patients were randomly assigned to receive either 40,000 units of rHuEPO or placebo on day three in the ICU; doses then continued weekly.

Reducing reliance on blood transfusions could have many benefits, the researchers said, for example, lowering transfusion reaction and transfusion-related infection, "as well as the potential for medical errors associated with the transfusion process itself." And, referring to the state of the nation's blood supply, they wrote, "The avoidance of unnecessary blood transfusions would also save a resource that is becoming increasingly scarce."

Further study is needed to assess the benefits of therapy on clinical outcomes or cost-effectiveness. But Gettinger is encouraged that initial findings may lead to improved results for critically-ill patients, and lessen reliance on blood transfusion: "The standard of care in managing the anemia in critically ill patients has always been to transfuse allogeneic blood," he said. "As risks of allogeneic blood are better understood, the opportunity to treat anemia with a non-blood product alternative and decrease the dependence on an increasingly scarce resource is significant."

## Model Program Benefits Depressed Older Adults

**A** team care approach more than doubles the effectiveness of depression treatment for older adults in general medical settings, a new UCLA/Dartmouth study reported. The findings, published in the December 11 *Journal of the American Medical Association (JAMA)*, show the benefits of a model primary care program to treat late life depression.

The study followed 1,801 depressed older adults from primary care clinics for one year. Half were assigned to care as usual and the other half to a new model of team care that Dartmouth Medical School investigators helped develop.

Nearly 5 million Americans over 65 experience symptoms of depression. Five to ten percent of older adults seen in primary care have major depression, associated with impaired function, diminished quality of life, considerable suffering, increased health care costs and deaths from medical illnesses and suicide.

The model program, Improving Mood — Promoting Access to Collaborative

Treatment (IMPACT), assigned patients age 60 and older to a depression care manager — specially trained nurses or psychologists — in their regular primary care clinic. These managers worked with a consulting psychiatrist, and in close collaboration with the patients' physicians for up to 12 months to educate and support patients, track symptoms and side effects, assist with changes in antidepressant treatment and provide counseling.

The study, coordinated by the UCLA Neuropsychiatric Institute, found that IMPACT care was significantly more effective than usual care for depression at each of the eight participating sites in California, Indiana, North Carolina, Texas and Washington. Almost half the participants in IMPACT reported a 50 percent or greater reduction in depression symptoms at 12 months, compared with 19 percent of those in customary care. IMPACT patients felt and functioned better and enjoyed more quality of life improvements.

"As a psychologist working in primary care I am particularly pleased that this col-

laborative treatment model was also able to make an effective counseling intervention available to older patients who preferred this approach over medication," said Mark Hegel, PhD, associate professor of psychiatry and of community and family medicine at Dartmouth Medical School, a co-author who trained and supervised the depression care managers in the study's counseling intervention aspect.

"Patients assigned to the IMPACT intervention, when they preferred a counseling approach, were six times more likely to receive counseling, usually a very brief and practical type of counseling called problem solving treatment, than patients assigned to the usual care condition. Collaborative team care makes counseling an option in primary care; an option not typically available without this approach."

Thomas Oxman, MD, professor of psychiatry and of community and family medicine, a nationally recognized expert on primary care mental health issues, served on the study advisory board.

## Act Early to Prevent Cancer

Winning the war on cancer requires preemptive strikes to suppress the threat before it erupts, cancer prevention trailblazer Michael B. Sporn, MD, maintains. "We're looking at the cancer problem in the wrong way; the disease is a process and we cannot wait until the end," he said.

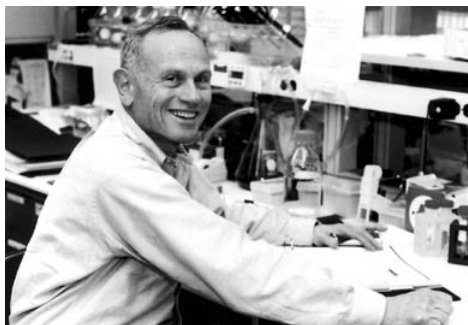
Sporn, Oscar M. Cohn '34 Professor of Pharmacology and Toxicology and of Medicine, advocates looking forward before someone becomes sick, instead of working backwards after diagnosis. He received the inaugural American Association for Cancer Research – Cancer Research Foundation of America Award for Excellence in Cancer Prevention Research in October and recently discussed his work with Dartmouth colleagues in the first the Norris Cotton Cancer Center Excellence in Research lecture.

His notion of chemoprevention — using drugs, vitamins or other agents to prevent or delay cancer development — has challenged existing cancer therapy dogma; it is a visionary concept that upends our approach to disease, even our definition of health. He peppered his Dartmouth talk with pithy metaphors to hammer home his prevention message.

"It's a question of perspective, and it can be a problem even among the best," he said, showing a painting by pre-Renaissance artist Giotto with halos askew. If one considers cancer as an iceberg, "then we've only been treating the tip. But the important cell biology is underneath and we have to melt that iceberg before it surfaces."

Early diagnosis today is really late diagnosis and the goal is to prevent cancer when it is still in the early stages of development. Carcinogenesis is an increasingly complex progression. "Surely, he said, "there should be an alternative for men between radical prostatectomy and watchful waiting."

The US declared war on cancer in 1971 to cut cancer deaths in half, yet three decades later, the numbers continue to rise. The failure to curb deaths is the rationale for prevention, an approach that Sporn and colleagues at Dartmouth and elsewhere are helping to realize.



Michael B. Sporn, MD

Sporn discussed a review he and colleague Nanjoo Suh, PhD, research assistant professor of pharmacology and toxicology, published in the July issue of *Nature Reviews Cancer*, assessing an array of chemopreventive agents and their molecular targets. Perhaps the best known among these are the selective estrogen-receptor modulators (SERMs) tamoxifen and raloxifene, used successfully against breast cancer. Their laboratory is exploring the possibilities of a third generation of SERMs with fewer side effects.

In collaboration with Gordon Gribble, PhD, and Tadashi Honda, PhD, in the Dartmouth College Department of Chemistry, Sporn has focused on triterpenoids, compounds similar to vitamin A and its analogues called retinoids, as potential agents against cancer and other diseases. His laboratory was the first to characterize transforming growth factor-beta (TGF- $\beta$ ), demonstrate its role in controlling cell growth, and show loss of its function in certain tumor cells. Now he is investigating how to exploit

TGF- $\beta$  signaling pathways to develop new drugs.

So why is there reluctance to embrace chemoprevention? One misperception, Sporn noted, is the view that people are healthy until they become sick with cancer. There is tremendous resistance to telling people they have early changes in their cells that could lead to invasive cancer. Risk reduction is a form of prevention, but with strong drugs, safety is paramount and in a seemingly healthy person the threshold for side effects is high. Safer and more reliable agents are needed, Sporn said, along with educating physicians and the public, including the media, on the promise of prevention. "It's a quality of life issue."

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whom spoke terrific English and were enthusiastic about teaching American students. Dr. Mehmeti conducted rounds in English while I was there for my benefit and personally presented all of her patients to me.

I stayed with Bukurije Shala, whose daughter Lilly lives in the Boston area ... Bukurije was a very sweet woman who treated me like a mother and kindly forced me many Albanian specialties. We got along very well despite the fact that she spoke very little English, and I spoke even less Albanian (we employed a lot of pantomime and hand gestures).

It is my opinion that the Kosova exchange is a valuable experience for Dartmouth Medical School students and a unique opportunity to observe the health care system in a developing country. It is also an opportunity to witness the efforts of international aid and development organizations in Kosova.

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